

1. A data processing method for synchronizing the data records of a plurality of disparate databases, the method comprising the steps of:

5 providing a status file containing data records representative of the contents of data records existing in the disparate databases at a prior synchronization;

10 comparing data records from at least a first and a second of the plurality of databases to corresponding data records of the status file to determine whether data records of the plurality of databases have changed or been deleted since the prior synchronization or whether there are new data records since the earlier synchronization;

updating the first and second databases based on the outcome of the comparing step; and

15 updating the status file so that its data records are representative of the contents of the data records of the first and second databases after they have been updated.

2. A data processing system for synchronizing the data records of a plurality of disparate databases, the system comprising:

20 means for providing a status file containing data records representative of the contents of data records existing in the disparate databases at a prior synchronization;

25 means for comparing data records from at least a first and a second of the plurality of databases to corresponding data records of the status file to determine whether data records of the plurality of databases have changed or been deleted since the prior synchronization or  
30 whether there are new records since the prior synchronization;

means for updating the first and second databases based on the outcome of the comparing step; and

means for updating the status file so that its data records are representative of the contents of the data records of the first and second databases after they have been updated.

3. The subject matter of claim 1 or 2 wherein the deciding step further comprises deciding whether to delete a data record from the first database based on the comparing step having determined that the corresponding record of the second database has been deleted since the earlier synchronization.

4. The subject matter of claim 3 wherein the comparing step comprises three steps:

a first comparing step comprising comparing data records from the first database to corresponding data records of the status file to determine whether any of the data records of the plurality of databases have changed or been deleted since the prior synchronization or whether there are new data records since the earlier synchronization;

storing new status file data records representative of new data records found in the first comparing step; and

a second comparing step comprising comparing data records from the second database to corresponding data records of the status file and to the new status file data records.

5. The subject matter of claim 4 wherein status indicators for each of the first and second databases are

produced on the basis of the outcome of the first and second comparing steps.

6. The subject matter of claim 3 wherein the status indicators comprise indicators indicative of the following outcomes of the comparisons performed in the comparing step: (1) the database record is unchanged relative to the corresponding status file data record; (2) the database record is changed relative to the corresponding status file data record; (3) the database record is absent from the status file data records; (4) the database record is new, meaning it is not among the status file data records.

7. The subject matter of claim 5 wherein the status indicators comprise indicators indicative of the following outcomes of the comparisons performed in the first and second comparing steps: (1) the database record is unchanged relative to the corresponding status file data record; (2) the database record is changed relative to the corresponding status file data record; (3) the database record is absent from the status file data records; (4) the database record is new, meaning it is not among the status file data records.

8. The subject matter of claim 3 wherein the status file has a single set of data records, one corresponding to each data record of the first and second databases at the prior synchronization.

9. The subject matter of claim 7 wherein the status file has a single set of data records, one corresponding to each data record of the first and second databases at the prior synchronization.

10. The subject matter of claim 3 wherein at least the data records of the first database are each identified by unique identification codes.

5 11. The subject matter of claim 9 wherein the data records of the first and the second databases are without unique identification codes.

12. The subject matter of claim 10 wherein data records of the status file are identified by the unique identification code of the first database.

10 13. The subject matter of claim 11 wherein data records of the status file are identified by at least one key field of the first database.

15 14. The subject matter of claim 11 wherein the correspondence between data records of the first and second databases is achieved by comparing key fields of the databases.

20 15. The subject matter of claim 11 wherein the correspondence between data records of the first and second databases is achieved by comparing key fields of the databases.

16. The subject matter of claim 4 wherein the second comparing step further comprises storing further new status file data records representative of new data records found in the second comparing step.

17. The subject matter of claim 16 wherein a set of workspace data records are used during synchronization, the workspace data records each having an identifier corresponding the identifier of the data records in the status file, an status indicator for each of the first and second databases.

18. The subject matter of claim 17 wherein the new status file data records are stored first as workspace data records.

19. The subject matter of claim 18 wherein following completion of the first and second comparing steps, the workspace data records are processed by comparing each pair of stored status indicators to a decision matrix to determine an action to be taken in updating the first and second databases.

20. The subject matter of claim 16 wherein the second comparing step further comprises examining for unused exact matches in the data records of the second database.

21. The subject matter of claim 16 wherein the second comparing step further comprises examining for key field matches in the data records of the second database.

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